

Sausage casing containing starch or starch derivatives and  
production process

5 The invention relates to sausage casings made from blends of thermoplastic starch derivatives with biodegradable, hydrophilic, suppleness-inducing polymers and suitable other additives with or without crosslinkers.

10 Most sausage casings consist of natural skins, but also of fiber-reinforced regenerated cellulose, collagen or synthetic polymers. Although cellulose and collagen are of natural origin, the sausage casings are produced in complex and environmentally-polluting processes. Casings made of other material, for example of protein- or acrylic-coated cloth, in  
15 contrast, are of only minor importance.

Of the known casings, only those made of cellulose hydrate cover the entire spectrum of applications. Collagen casings, for some applications, have an excessive water-vapor or oxygen permeability. The casings made of synthetic polymers are unsuitable for producing long-keeping sausage. Although they  
20 may be produced inexpensively and simply, for example by extrusion, in contrast to the cellulose hydrate casings or collagen casings, they are not biodegradable.

25 Although the sausage casing which is described in EP-A 0 709 030, produced by extrusion of thermoplastic starch, is biodegradable, it still has deficiencies. In particular it is not sufficiently cooking-stable and has a tendency to embrittle after water treatment or as a result of loss of plasticizer.  
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Therefore there still remained the object of developing a food casing which may be produced from natural, as far as possible  
35 renewable, raw materials by simple and environmentally acceptable processes, as far as possible by an extrusion process, and at the same time is biodegradable or at least